

AMENDMENTS TO THE CLAIMS

1. (currently amended): A wireless communication function equipped sensor comprising:

a sensor unit comprising at least one physical quantity detection device ~~devices~~, which detects ~~a~~ the physical quantity of ~~a~~ the detection object,

an electric power generator ~~generators~~,

an electric power charging device which is charged by ~~the~~ electric power generated by said electric power generator ~~generators~~,

a processing device which ~~makes the~~ processes detection results from said at least one physical quantity detection device ~~devices~~,

a wireless transmitting device which transmits said detection results to a wireless communication device ~~devices~~ by wireless signals, and

a wireless receiving device which receives wireless signals ~~send~~ from said wireless communication device ~~devices~~;

wherein the ~~devices, which are sensors~~ sensor unit, processing device ~~devices~~, wireless transmitting device and wireless receiving device ~~devices~~, are activated intermittently, using the electric power charged by said electric power charging device ~~devices~~ supply, said sensor unit, processing device, wireless transmitting device and receiving device being load devices of the electric power charging device, and

wherein said wireless receiving device is activated after the transmitting device is activated.

2. (currently amended): A wireless communication function equipped sensor comprising:

a plurality of ~~sensors~~, physical quantity detection devices, which detect ~~the~~ physical quantities ~~quantity~~ of ~~a~~ the detection object,

an electric power generator ~~generators~~,

an electric power charging device which is charged by ~~the~~ electric power generated by said electric power generator ~~generators~~,

a plurality of processing devices, which ~~makes the~~ processes detection results from said physical quantity detection devices,

a wireless transmitting device which transmits said detection results to a wireless communication device ~~devices~~ by wireless signals, and

a wireless receiving device which receives wireless signals ~~send~~ from said wireless communication device ~~devices~~;

wherein the ~~devices, which are sensors~~ physical quantity detection devices, processing devices, wireless transmitting device and wireless receiving device ~~devices~~, are activated intermittently, using ~~the~~ electric power charged by said electric power charging device ~~devices~~,

wherein said wireless receiving device is activated by the transmitting device.

3. (canceled):

4. (currently amended): A wireless communication function equipped sensor according to claim 1, further comprising a power control device which supplies the electric power charged ~~in~~ by said electric power charging device to said load devices, wherein ~~and the~~ said load devices are activated when the electric power charged ~~in~~ by said electric power charging device reaches a level sufficient to activate said load devices.

5. (currently amended): A wireless communication function equipped sensor according to claim 1, further comprising a power control device which supplies sequentially the electric power charged ~~in~~ by said electric power charging device to said load devices, ~~which are said physical quantity devices, said processing devices, said wireless transmitting devices and said wireless receiving devices,~~ when the electric power charged ~~in~~ by said electric power charging device reaches a level sufficient to activate said load devices.

6. (currently amended): A wireless communication function equipped sensor according to claim 1, further comprising storage devices, which are load devices of said electric power charging device ~~devices~~, for storing data of wireless signals received by said wireless receiving device ~~devices~~.

7. (currently amended): A wireless communication function equipped sensor according to claim 1,

wherein said processing device ~~devices~~ calculates an ~~the~~ amount of data receivable by said wireless ~~transmitting~~ receiving device ~~devices~~ or an ~~the~~ amount of time allowable for receiving the wireless signal by said wireless receiving device ~~devices~~ based on ~~said~~ an electric power level when electric power sufficient to activate

said load devices is charged ~~in by~~ said electric power charging device ~~devices~~, and adds ~~those the~~ calculated ~~results~~ amounts to said ~~processing~~ results.

8. (currently amended): A wireless communication function equipped sensor according to claim 1, wherein said processing device changes an ~~the~~ operating mode based on the wireless signals received by said wireless receiving device.

9. (currently amended): A wireless communication function equipped sensor according to claim 1, wherein said processing device executes changes in a ~~the~~ program ~~showing the~~ comprising procedures ~~which that~~ said processing device must process based on the wireless signals received by said wireless receiving device.

10. (currently amended): A wireless communication function equipped sensor according to claim 1, wherein said electric power ~~generating device~~ generator starts generating electricity in response to an ~~the~~ output of an environment generating device for applying generating conditions predicted as the environment during generation of electricity ~~to said generating device~~.

11. (currently amended): A wireless communication function equipped sensor according to claim 1, wherein said electric power ~~generating device~~ generator starts generating electricity in response to an ~~the~~ output of an environment generating device for outputting a sound wave or an ultrasonic wave with a frequency identical to a frequency ~~that of the~~ vibration during generation of electricity.

12. (currently amended): A wireless communication function equipped sensor according to claim 1, further comprising a transmission stopping device for stopping the transmission of wireless signals by said wireless transmitting device based on wireless signals received from said wireless receiving device.

13. (currently amended): A wireless communication function equipped sensor according to claim 1, wherein said wireless transmitting device transmits wireless signals to said wireless communication device ~~destination~~ by a communications method different from that of said wireless receiving device.

14. (currently amended): A wireless communication function equipped sensor according to claim 1, wherein said wireless transmitting device transmits wireless signals to said wireless communication device ~~destination~~ by the UWB communications method and, said wireless receiving device receives wireless signals from said wireless communication device ~~destination~~ using any of FM, AM or infrared communications methods.

15. (currently amended): A wireless host as a communication destination for ~~a~~ of wireless communication function equipped ~~sensors~~ sensor according to claim 1, comprising ~~a~~ wireless signal transmitting/receiving device for transmitting and receiving wireless signals to and from said wireless communication function equipped sensor, and said wireless signal transmitting/receiving device transmits wireless signals to said wireless communication function equipped sensor immediately after receiving wireless signals, ~~under the condition that said wireless signals were received~~ from said wireless communication function equipped sensor.

16. (currently amended): A wireless host as the communication destination for said wireless communication function equipped sensor according to claim 15, wherein said wireless signal transmitting/receiving device divides data of signals to be sent and transmits said signals when ~~a~~ the data quantity of the transmitting signals to be sent to said wireless communication function equipped sensor is larger than ~~a~~ the data quantity of wireless signals received from said wireless communication function equipped sensor.

17. (currently amended): A wireless host as the communication destination for said wireless communication function equipped sensor according to claim 15, wherein said wireless signal transmitting/receiving device analyzes the wireless signals received from said wireless communication function equipped sensor and[[,]] determines a data quantity of the transmitting signal to be sent at one time to said wireless communication function equipped sensor.